

*INCREASING SAFETY-BELT USE IN SPANISH DRIVERS:
A FIELD TEST OF PERSONAL PROMPTS*

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A variation of the ABAB experimental design was used to assess the impact of a verbal prompt on safety-belt use for those traveling by urban roads and highways in Spain. The personal prompt resulted in an increase (29.6%) in safety-belt use among drivers traveling on urban roads. This research shows that the impact of personal prompts can be generalized to cultures outside the United States.

DESCRIPTORS: prompts, safety, safety belts

Although the effectiveness of safety belts in preventing death and reducing injury severity in traffic crashes is well known, they are not used consistently by all vehicle occupants.

The use of personal prompts has been shown to be an inexpensive and effective method of increasing safety-belt use. For example, Engerman, Austin, and Bailey (1997) found personal prompts to increase safety-belt use by 12% at a grocery store in the southeastern United States. Similarly, Austin, Alvero, and Olson (1998) found that personal prompts increased safety-belt use by an average of 20% among Michigan restaurant patrons.

This study investigated whether a verbal personal prompt would also be an effective strategy for increasing safety-belt use among Spanish drivers. Because the percentages of safety-belt use in Spain differ between high-

ways and city streets, the impact of the prompt was examined separately for drivers who reported each type of driving.

METHOD

Participants and Setting

The participants were 138 motor vehicle drivers (students, academic staff, and general staff) who used the two main parking lots at the University of Girona (Spain). The sample consisted of 75 (54%) men and 63 (46%) women whose ages ranged from 18 to 53 years ($M = 24.2$; $SD = 5.4$). Their mean driving experience was 5.7 years ($SD = 5.9$). Of the participants, 71% drove every day and 83% reported traveling more than 50 km per week.

Design, Materials, and Procedure

To assess the effect of a personal prompt on safety-belt use, a between-subjects ABAB reversal design was used. The participants were different in each phase.

Baseline condition (A). Interviewers approached drivers using the two lots and

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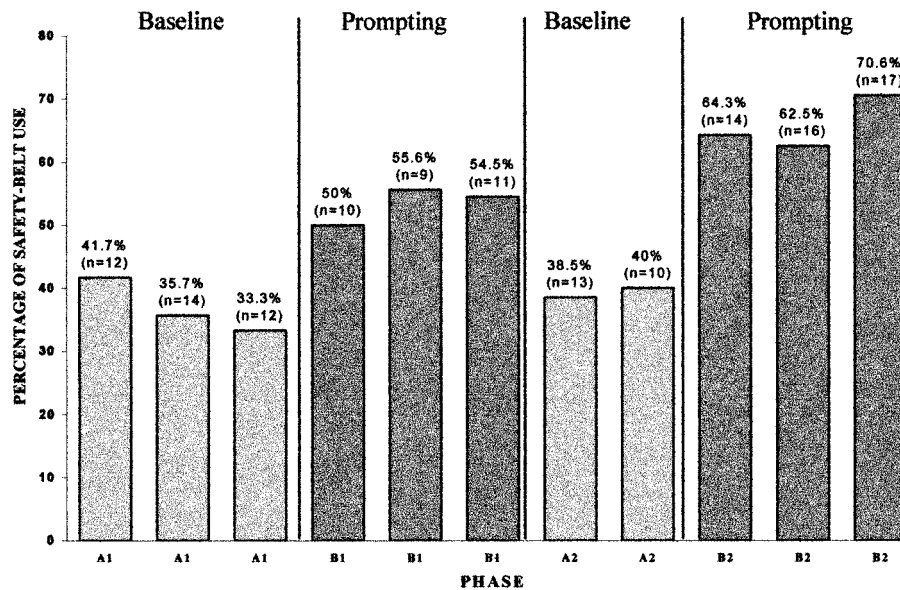


Figure 1. Percentages of day-by-day variation on safety-belt use during baseline (A1 and A2) and personal prompting (B1 and B2) conditions.

asked each one to answer some questions about experience as a driver, age, and knowledge of recent changes to the legal alcohol limit. The drivers were also asked where their journey would take place (urban road or highway).

Personal prompting condition (B). The interviews were carried out in the same manner as in the baseline condition, except after each interview drivers were given the verbal prompt "Remember to buckle your safety belt because it is very effective for avoiding serious injury or death if you have a traffic accident."

The registration number of the car was also taken down unobtrusively, after the car had left the lot. Two independent observers, who were unaware of the research objectives, were situated at the exit of the parking lot and also unobtrusively observed the registration numbers of the vehicles leaving the lot and whether or not the driver was using a safety belt. Vehicle number plates were recorded to prevent repeated participation. That is, the drivers were included only the

first time they were interviewed and observed.

Although a total of 940 observations were conducted, only those drivers who were interviewed and observed once were retained in the sample, yielding 138 observations. Interobserver agreement was 94%, and the kappa of Cohen coefficient was 0.89. The entire data set collected by one of the observers was chosen randomly for the analysis.

RESULTS AND DISCUSSION

When drivers were prompted to use their safety belts, they used them more often than in the baseline conditions ($M_s = 36.8\%$ and 39.1% in baseline and 53.3% and 65.9% in prompting). The percentage increases of safety-belt use during the intervention phases were 44.8% and 68.5% from the respective baseline phases. These differences were statistically significant, $\chi^2(1) = 7.4$; $p = .006$. Figure 1 shows the day-by-day variation in safety-belt use, along with the number of participants in each day.

For drivers traveling on the highway, safety-belt use increased during the intervention phases by 19.5% and 18.5%, respectively, which was not statistically significant, $\chi^2(1) = 1.2$; $p = .3$. However, for drivers traveling on urban roads only, safety-belt use increased from baseline by 75.4% and 113.1%, respectively. These increases were statistically significant, $\chi^2(1) = 6.1$; $p = .01$.

The fact that the effect of the prompt was statistically significant only among drivers whose journey was solely on urban roads may be due to the lower initial baseline level of safety-belt use. Research has found that studies with lower initial baselines were able to increase safety-belt use by more than those in which the baseline level of safety-belt use was higher (Hagenzieker, Bijleveld, & Davidse, 1997).

A variety of prompting procedures have been used to increase driver safety (e.g., Van Houten & Retting, 2001). Personal prompts have shown great potential for increasing safety-belt use, even when baseline levels are already high (Cox, Cox, & Cox, 2000). The main advantages of this type of intervention are its simplicity and low cost, if it is applied in situations in which a person is naturally available to give verbal prompts (e.g., gas stations, toll-collection points, bars, stadiums,

parking lots, or schools). Therefore, it is worth considering these types of programs for increasing safety-belt use for entire communities. Although little is known about the long-term effects on changes in safety-belt use, it seems likely that if these types of interventions were applied in a large number of places, more drivers would get into the habit of using safety belts. This hypothesis should be investigated in future research. Further research is also needed to investigate why the prompts were effective for some participants and not for others.

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